# SHAPE MATTERS



CERENOVUS SPECTRA<sup>TM</sup> family of coils







## $\underset{\text{microcoil}}{\mathsf{MICRUSFRAME}}{}^{\text{\tiny M}}$



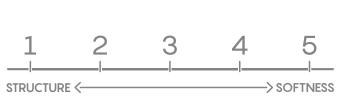
**FEATURES** 





# MICROCOIL DELIVERY SYSTEM EASE OF USE STABLE DEPLOYMENT MICROCATHETER STABILITY The CERENOVUS SPECTRA<sup>TM</sup> Family of Microcoils is ranked according to softness scale based on Image: Construction of the softness scale based on

is ranked according to softness scale based on key parameters that influence spring constant. Coils are categorized on a scale of 1 to 5. Coils providing structure and stability (rated 1) and ultrasoft coils for dense packing (rated 5) create a full spectrum of softness.







# MICRUSFRAME<sup>™</sup>S

## Structure and Stability

#### **COIL FEATURES:**

- Combines the **structure** of the MICRUSFRAME<sup>™</sup> Coil shape technology with the **stability** of a framing coil.
- Predictable stable frame creates open inner core for concentric filling.
- Designed to provide robust scaffolding with **excellent neck coverage** which may reduce retreatment rates<sup>6</sup>.
- 0.0165" Microcatheter compatible; optimal performance with PROWLER SELECT® LP ES Microcatheter.

# MICRUSFRAME<sup>™</sup>S 18

microcoil

#### Complex Stretch Resistant Coil

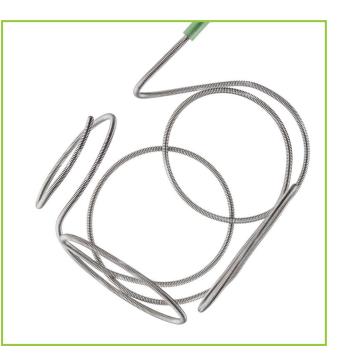
MFR182050       20mm       50cm       1         MFR181950       19mm       50cm       1         MFR181846       18mm       46cm       1         MFR181750       17mm       50cm       1         MFR181750       17mm       50cm       1         MFR181647       16mm       47cm       1         MFR18150       15mm       50cm       1         MFR181447       14mm       47cm       1         MFR181447       14mm       47cm       1         MFR181343       13mm       43cm       1         MFR181447       12mm       20.7cm       1         MFR181220       12mm       20.7cm       1         MFR18137       11mm       37cm       1         MFR181034       10mm       34cm       1         MFR18017       10mm       17.1cm       1         MFR180933       9mm       15.3cm       1         MFR180915       9mm       15.3cm       1         MFR180830       8mm       13.6cm       1         MFR180813       8mm       13.6cm       1         MFR180612       6mm       12.2cm       1 <th>Catalog no.</th> <th>Diameter</th> <th>Length</th> <th>Softness Scale</th>	Catalog no.	Diameter	Length	Softness Scale
MFR181846       18mm       46cm       1         MFR181750       17mm       50cm       1         MFR181647       16mm       47cm       1         MFR181647       16mm       47cm       1         MFR181550       15mm       50cm       1         MFR181550       15mm       50cm       1         MFR181647       14mm       47cm       1         MFR181343       13mm       43cm       1         MFR181343       13mm       43cm       1         MFR181240       12mm       40cm       1         MFR181240       12mm       20.7cm       1         MFR181220       12mm       20.7cm       1         MFR181137       11mm       37cm       1         MFR181034       10mm       34cm       1         MFR18034       10mm       17.1cm       1         MFR180933       9mm       33cm       1         MFR180915       9mm       15.3cm       1         MFR180830       8mm       13.6cm       1         MFR180714       7mm       14.3cm       1         MFR180612       6mm       12.2cm       1 <td>MFR182050</td> <td>20mm</td> <td>50cm</td> <td>1</td>	MFR182050	20mm	50cm	1
MFR181750       17mm       50cm       1         MFR181647       16mm       47cm       1         MFR181550       15mm       50cm       1         MFR181447       14mm       47cm       1         MFR181343       13mm       43cm       1         MFR181240       12mm       40cm       1         MFR181220       12mm       20.7cm       1         MFR181137       11mm       37cm       1         MFR181137       11mm       38.9cm       1         MFR180034       10mm       34cm       1         MFR180035       9mm       33cm       1         MFR180915       9mm       15.3cm       1         MFR180830       8mm       13.6cm       1         MFR180714       7mm       14.3cm       1         MFR180612       6mm       12.2cm       1	MFR181950	19mm	50cm	1
MFR181647       16mm       47cm       1         MFR181647       15mm       50cm       1         MFR181550       15mm       50cm       1         MFR181447       14mm       47cm       1         MFR181343       13mm       43cm       1         MFR181343       13mm       43cm       1         MFR181343       12mm       40cm       1         MFR181240       12mm       40cm       1         MFR181240       12mm       20.7cm       1         MFR181137       11mm       37cm       1         MFR181137       11mm       37cm       1         MFR181137       11mm       18.9cm       1         MFR18034       10mm       34cm       1         MFR180034       10mm       17.1cm       1         MFR180933       9mm       15.3cm       1         MFR180915       9mm       15.3cm       1         MFR180830       8mm       13.6cm       1         MFR180813       8mm       13.6cm       1         MFR180612       6mm       12.2cm       1	MFR181846	18mm	<b>46cm</b>	1
MFR181550       15mm       50cm       1         MFR181447       14mm       47cm       1         MFR181343       13mm       43cm       1         MFR181343       13mm       43cm       1         MFR181343       13mm       43cm       1         MFR181343       12mm       40cm       1         MFR181240       12mm       40cm       1         MFR181220       12mm       20.7cm       1         MFR181137       11mm       37cm       1         MFR181137       11mm       37cm       1         MFR181137       11mm       18.9cm       1         MFR18034       10mm       34cm       1         MFR18017       10mm       17.1cm       1         MFR180933       9mm       33cm       1         MFR180915       9mm       15.3cm       1         MFR180830       8mm       30cm       1         MFR180813       8mm       13.6cm       1         MFR180714       7mm       14.3cm       1         MFR180612       6mm       12.2cm       1	MFR181750	17mm	50cm	1
MFR181447       14mm       47cm       1         MFR181343       13mm       43cm       1         MFR181343       13mm       43cm       1         MFR181343       12mm       40cm       1         MFR181240       12mm       40cm       1         MFR181220       12mm       20.7cm       1         MFR181137       11mm       37cm       1         MFR181137       11mm       37cm       1         MFR181137       11mm       37cm       1         MFR181034       10mm       34cm       1         MFR181034       10mm       34cm       1         MFR18034       10mm       34cm       1         MFR18017       10mm       17.1cm       1         MFR180913       9mm       33cm       1         MFR180915       9mm       15.3cm       1         MFR180813       8mm       13.6cm       1         MFR180714       7mm       14.3cm       1         MFR180612       6mm       12.2cm       1	MFR181647	16mm	47cm	1
MFR181343       13mm       43cm       1         MFR181240       12mm       40cm       1         MFR181220       12mm       20.7cm       1         MFR181137       11mm       37cm       1         MFR181137       11mm       37cm       1         MFR181137       11mm       37cm       1         MFR181137       11mm       37cm       1         MFR181034       10mm       34cm       1         MFR181034       10mm       17.1cm       1         MFR180933       9mm       33cm       1         MFR180915       9mm       15.3cm       1         MFR180830       8mm       13.6cm       1         MFR180813       8mm       13.6cm       1         MFR180714       7mm       14.3cm       1         MFR180612       6mm       12.2cm       1	MFR181550	15mm	50cm	1
MFR181240         12mm         40cm         1           MFR181220         12mm         20.7cm         1           MFR181137         11mm         37cm         1           MFR181137         11mm         37cm         1           MFR181137         11mm         37cm         1           MFR181137         11mm         37cm         1           MFR181118         11mm         18.9cm         1           MFR181034         10mm         34cm         1           MFR181017         10mm         17.1cm         1           MFR180933         9mm         33cm         1           MFR180915         9mm         15.3cm         1           MFR180830         8mm         30cm         1           MFR180813         8mm         13.6cm         1           MFR180714         7mm         14.3cm         1           MFR180612         6mm         12.2cm         1	MFR181447	14mm	47cm	1
MFR181220       12mm       20.7cm       1         MFR181137       11mm       37cm       1         MFR181118       11mm       18.9cm       1         MFR181034       10mm       34cm       1         MFR181034       10mm       34cm       1         MFR181034       10mm       34cm       1         MFR180033       9mm       33cm       1         MFR180915       9mm       15.3cm       1         MFR180813       8mm       30cm       1         MFR180813       8mm       13.6cm       1         MFR180714       7mm       14.3cm       1         MFR180612       6mm       12.2cm       1	MFR181343	13mm	43cm	1
MFR181137       11mm       37cm       1         MFR181118       11mm       18.9cm       1         MFR181034       10mm       34cm       1         MFR181034       10mm       34cm       1         MFR181034       10mm       34cm       1         MFR181034       10mm       17.1cm       1         MFR180933       9mm       33cm       1         MFR180915       9mm       15.3cm       1         MFR180813       8mm       30cm       1         MFR180813       8mm       13.6cm       1         MFR180714       7mm       14.3cm       1         MFR180612       6mm       12.2cm       1	MFR181240	12mm	40cm	1
MFR18111811mm18.9cm1MFR18103410mm34cm1MFR18101710mm17.1cm1MFR1809339mm33cm1MFR1809159mm15.3cm1MFR1808308mm30cm1MFR1808138mm13.6cm1MFR1807147mm14.3cm1MFR1806126mm12.2cm1	MFR181220	12mm	20.7cm	1
MFR181034       10mm       34cm       1         MFR181017       10mm       17.1cm       1         MFR180933       9mm       33cm       1         MFR180915       9mm       15.3cm       1         MFR180830       8mm       30cm       1         MFR180813       8mm       13.6cm       1         MFR180714       7mm       14.3cm       1         MFR180612       6mm       12.2cm       1	MFR181137	11mm	37cm	1
MFR181017       10mm       17.1cm       1         MFR180933       9mm       33cm       1         MFR180915       9mm       15.3cm       1         MFR180830       8mm       30cm       1         MFR180813       8mm       13.6cm       1         MFR180714       7mm       14.3cm       1         MFR180612       6mm       12.2cm       1	MFR181118	11mm	18.9cm	1
MFR180933         9mm         33cm         1           MFR180915         9mm         15.3cm         1           MFR180830         8mm         30cm         1           MFR180813         8mm         13.6cm         1           MFR180714         7mm         14.3cm         1           MFR180612         6mm         12.2cm         1	MFR181034	10mm	34cm	1
MFR180915       9mm       15.3cm       1         MFR180830       8mm       30cm       1         MFR180813       8mm       13.6cm       1         MFR180714       7mm       14.3cm       1         MFR180612       6mm       12.2cm       1	MFR181017	10mm	17.1cm	1
MFR1808308mm30cm1MFR1808138mm13.6cm1MFR1807147mm14.3cm1MFR1806126mm12.2cm1	MFR180933	9mm	33cm	1
MFR1808138mm13.6cm1MFR1807147mm14.3cm1MFR1806126mm12.2cm1	MFR180915	9mm	15.3cm	1
MFR1807147mm14.3cm1MFR1806126mm12.2cm1	MFR180830	8mm	30cm	1
MFR180612 6mm 12.2cm 1	MFR180813	8mm	13.6cm	1
	MFR180714	7mm	14.3cm	1
MFR180510 5mm 10cm 1	MFR180612	6mm	12.2cm	1
	MFR180510	5mm	10cm	1

#### **Extra Long Coils**



#### **COIL FEATURES:** Structure & Stability

- MICRUSFRAME<sup>™</sup> S 18 Microcoil: Primary Outer Diameter = 0.015"
- Excellent choice for aneurysms where coil structure is critical



# MICRUSFRAME<sup>™</sup>S 10

microcoil

#### Complex Stretch Resistant Coil

Catalog no.	Diameter	Length	Softness Scale
MFR100829	8mm	29cm	2
MFR100816	8mm	16.1cm	2
MFR100730	7mm	30cm	2
MFR100713	7mm	13.9cm	2
MFR100626	6mm	26cm	2
MFR100611	6mm	11.9cm	2
MFR100517	5mm	17cm	2
MFR100509	5mm	9.7cm	2
MFR100412	4mm	11.5cm	2
MFR100407	4mm	7.5cm	2
MFR100356	3.5mm	6.6cm	3
MFR100305	3mm	5.4cm	3
MFR100253	2.5mm	3.3cm	3
MFR100202	2mm	2.5cm	3

#### **Extra Long Coils**



#### **COIL FEATURES:** Structure & Stability

- MICRUSFRAME<sup>™</sup> S 10 Microcoil: Primary Outer Diameter = 0.0105".
- Coil provides soft, supportive 3D structure for aneurysm framing.









## Random Shape, Predictable Results

#### **COIL FEATURES:**

- GALAXY G3<sup>™</sup> Coils have a complex shape and the unique **proprietary random loop design** which does not follow a predefined shape.
- GALAXY random loops pursue a unique path each time they are deployed.
- Conforms to the true aneurysm shape and seeks open space to fill concentrically, from the periphery to the core.
- **Tight Distal Loop (TDL) Technology:** the first loop of all GALAXY G3<sup>™</sup> Coils 4mm in diameter and larger is one third smaller than the labeled coil diameter, and is designed to facilitate the anchoring of the coil in the aneurysm.
- **Random** complex coils are shown to have **better conformability** and provide excellent framework for **concentric filling**, dense packing, and lower retreatment rates vs. other existing helical and complex coils<sup>1</sup>.
- Shape integrity with a variety of increasing coil softness.
- 0.0165" Microcatheter compatible; optimal performance with PROWLER SELECT® LP ES Microcatheter.

## GALAXY G3™

#### 1 2 3 4 5 STRUCTURE <--> SOFTNESS

microcoil

#### Random Complex Stretch Resistant Coil

GLY12123012mm30cm3GLY12103010mm30cm3GLY1209259mm25cm3GLY1208248mm24cm3GLY1208158mm15cm3GLY1207217mm21cm3GLY1207157mm15cm3	
GLY120925       9mm       25cm       3         GLY120824       8mm       24cm       3         GLY120815       8mm       15cm       3         GLY120721       7mm       21cm       3         GLY120715       7mm       15cm       3	
GLY1208248mm24cm3GLY1208158mm15cm3GLY1207217mm21cm3GLY1207157mm15cm3	
GLY1208158mm15cm3GLY1207217mm21cm3GLY1207157mm15cm3	
GLY1207217mm21cm3GLY1207157mm15cm3	
GLY120715 7mm 15cm 3	
GLY120620 6mm 20cm 3	
GLY120615 6mm 15cm 3	
GLY120610 6mm 10cm 3	
GLY120515 5mm 15cm 3	
GLY120510 5mm 10cm 3	
GLY120412 4mm 12cm 3	
GLY120410 4mm 10cm 3	
GLY120407 4mm 7cm 3	
GLY123509 3.5mm 9cm 3	
GLY123575 3.5mm 7.5cm 3	
GLY120308 3mm 8cm 3	
GLY120306 3mm 6cm 3	
GLY122505 2.5mm 5cm 3	
GLY122535 2.5mm 3.5cm 3	
GLY120202 2mm 2cm 3	

<sup>1</sup> White, J.B., et. al AJNR Am J Neuroradiol. 2008 Aug;29(7):1242-6.

#### **COIL FEATURES:** Random Shape, Predictable Results

- GALAXY G3<sup>™</sup> Microcoil: Primary Outer Diameter = 0.012".
- Optimal balance of softness and support.
- Superior volumetric filling versus 10-System coils<sup>1</sup>.



## GALAXY G3™XSFT



microcoil

#### Random Complex Stretch Resistant Coil

Catalog no.	Diameter	Length	Softnes Scale
GLX120410	4mm	10cm	4
GLX120408	4mm	8cm	4
GLX120406	4mm	6cm	4
GLX123509	3.5mm	9cm	4
GLX123575	3.5mm	7.5cm	4
GLX123505	3.5mm	5cm	4
GLX120308	3mm	8cm	4
GLX120306	3mm	6cm	4
GLX120304	3mm	4cm	4
GLX122505	2.5mm	5cm	4
GLX122535	2.5mm	3.5cm	4
GLX122525	2.5mm	2.5cm	4
GLX1202081	2mm	8cm	4
GLX1202061	2mm	6cm	4
GLX1202041	2mm	4cm	4
GLX120202	2mm	2cm	4
GLX120201	2mm	1.5cm	4

<sup>1</sup> XTRASOFT 2X4, 2X6 and 2X8 coils feature a helical shape

#### **COIL FEATURES:** Random Shape, Predictable Results

- GALAXY G3<sup>™</sup> XSFT Microcoil: Primary Outer Diameter = 0.012".
- Ultra thin coil wire provides enhanced softness with maintaining high packing volume.



## GALAXY G3™MINI



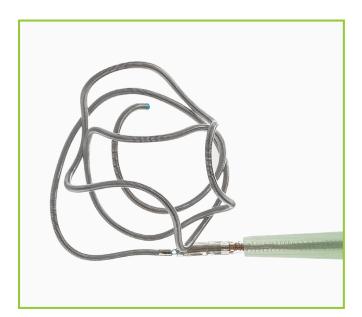
microcoil

#### Random Complex Stretch Resistant Coil

Catalog no.	Diameter	Length	Softness Scale
GLM930080	3mm	8cm	5
GLM930060	3mm	6cm	5
GLM930040	3mm	4cm	5
GLM925055	2.5mm	5.5cm	5
GLM925045	2.5mm	4.5cm	5
GLM925035	2.5mm	3.5cm	5
GLM920060	2mm	6cm	5
GLM920040	2mm	4cm	5
GLM920030	2mm	3cm	5
GLM915040	1.5mm	4cm	5
GLM915030	1.5mm	3cm	5
GLM915025	1.5mm	2.5cm	5
GLM915020	1.5mm	2cm	5
GLM910040	1mm	4cm	5
GLM910030	1mm	3cm	5
GLM910025	1mm	2.5cm	5
GLM910020	1mm	2cm	5
GLM910015	1mm	1.5cm	5
GLM910010	1mm	1cm	5

#### **COIL FEATURES:** Random Shape, Predictable Results

- GALAXY G3<sup>™</sup> MINI Microcoil: Primary Outer Diameter = 0.009"
- Our softest coil in the SPECTRA portfolio made with our smallest coil wire.
- Excellent for addressing remaining spaces within the coil mass.
- Comprehensive offering of random complex coils.
- Proprietary stretch resistance technology minimizes impact to shape while offering the security of stretch resistance.



#### ACCESSORIES

#### ENPOWER® detachment control box

#### Detachment control system

Catalog no.	Description
DCB2000500	ENPOWER® DCB 2
ECB00018200	ENPOWER <sup>®</sup> control cable
CCB00015700	Connecting cable

#### Used with:

- · MICRUSFRAME™ S Microcoil
- · GALAXY G3™ Microcoil
- · GALAXY G3™ XSFT Microcoil
- · GALAXY G3™ MINI Microcoil

EnPOWER®

detachment control box

Codman

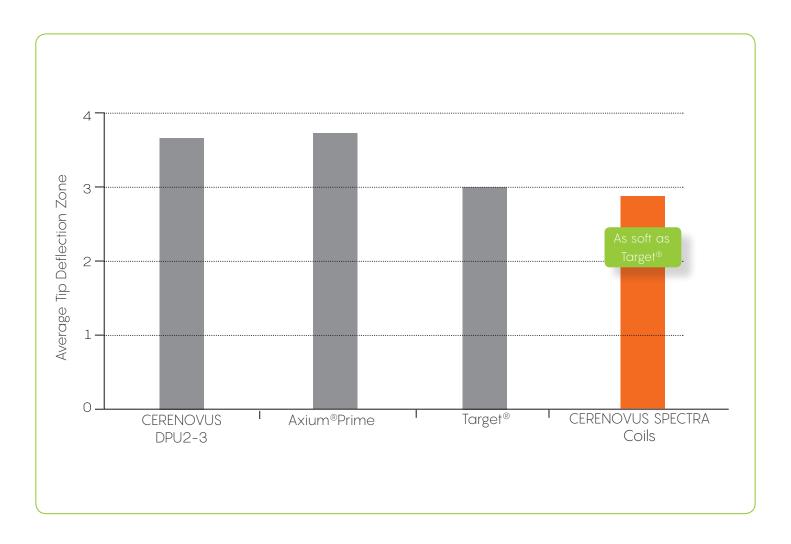
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X





#### Microcatheter Tip Stability Test<sup>1</sup>:



<sup>1</sup> ADAPTIV Report: 103225336, Codman DPU2, Axium Prime, Target n=3, CERENOVUS SPECTRA™ Coils n=10



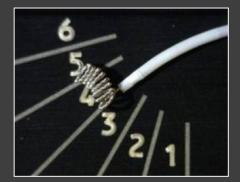


#### The CERENOVUS SPECTRA<sup>™</sup> Microcoil Delivery System provides:

Reduced Microcatheter Tip Deflection.



Improved Detachment Reliability<sup>2</sup>.



DELTAPLUSH® (DPU2-3) MicroCoil 1.5 mm x 3 cm



SPECTRA DELTAXSFT Microcoil 1.5 mm x 3 cm



Target® Nano<sup>™</sup> 1.5 mm x 3 cm

<sup>2</sup> CERENOVUS in house testing report 103216000.





#### **Articulating Junction**

CERENOVUS SPECTRA™ Microcoils feature an articulating detachment junction. This unique feature enables precise filling and finishing in tightly packed spaces.







#### Innovation with Results:

In competitive testing, our CERENOVUS SPECTRA<sup>™</sup> Microcoil Delivery System was found to be<sup>1</sup>:

- $\bigcirc$  ... softer than the current system and Axium<sup> $\mathrm{M}$ </sup> Prime
- 𝞯 ... as soft as Target<sup>®</sup>
- $\bigcirc$  ... more deliverable than Target®
- ♂ ... more deliverable than V-Trak® Advanced
- $\bigcirc$  ... more reliable detachment when compared to the current system

45%<sup>2</sup> Reduction in force on the MC tip 1.9 x<sup>3</sup> More peak force to deliver a Target® coil

Softer than current generation and Axium® Prime

<sup>1</sup> ADAPTIV Report: 103225336, Codman DPU2, Axium Prime, Target n=3, CERENOVUS SPECTRA™ Coils n=10.

<sup>2</sup> Data memo calculation based on ADAPTIV reports: 103216002, 103207116 The 45% was calculated from Tip Deflection Force Data collected utilizing an Instron.

<sup>3</sup> ADAPTIVED and 100000000 100100000 and back of the statistics

<sup>3</sup> ADAPTIV Reports: 103226869, 103163208; n=3; Benchtop testing.





#### Ease of Use

Highly–Visible Fluoro Markers with Tactile Response for Greater Control



**Limited warranty and disclaimer:** CERENOVUS products are sold with a limited warranty to the original purchaser against defects in workmanship and materials. Any other express or implied warranties, including warranties of merchantability or fitness, are hereby disclaimed. Please also refer to the package insert(s) or other labeling associated with the devices identified in this document for additional information.

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Note: For recognized manufacturer, refer to the product label.

Please refer to the instructions for use for a complete list of indications, contraindications, warnings and precautions.

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